DOCUMENT RESUME

ED 157 068 CS 204 220

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TITLE The Effect of Audience and Mode of Discourse on the Syntactic Complexity of Written Composition at Two Grade Levels.
PUB DATE May 78
NOTE 26p.; Paper presented at the Annual Meeting of the Canadian Educational Researchers Association (London, Ontario, May 1978)

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Audiences; *Composition (Literary); Composition Skills (Literary); *Descriptive Writing; *Discourse Analysis; Elementary Secondary Education; Grade 6; Grade 10; *Narration; *Persuasive Discourse; Sentence Structure; *Syntax

ABSTRACT

In order to determine the effects of writing for different audiences and in different modes of discourse on the syntactic complexity of compositions written by sixth and tenth grade students, 240 students were asked to write in three different modes (argumentive, descriptive, and narrative) to be read by a teacher and a best friend. There was a significant audience effect on clause length for the 120 tenth grade students whose compositions written for the teacher were more syntactically complex than those written for the best friend. At both the sixth and tenth grade levels, the argumentive mode was more syntactically complex than either the descriptive or narrative modes. The results indicate that narrative writing, which showed no increase in syntactic complexity over a four year age span, is not useful for examining the development of syntactic complexity. (JF)

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The Effect of Audience and Mode of Discourse on the Syntactic Complexity of Written Composition at Two Grade Levels

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Paper presented at the Annual Meeting of the Canadian Educational Researchers Association, London, Ontario, May 31, 1978

C S220K 220

Audience and Mode of Discourse Effects on Syntactic Complexity in Writing at Two Grade Levels

Since the publication of Hunt's (1965) study of the development of syntactic complexity in written composition, a number of other investigators have replicated his finding that mean T-unit length increases with age in written composition (Blount, Johnson and Fredrick, 1968; Braun and Klassen, 1973; Loban, 1976; O'Donnell, Griffin and Norris, 1967; Veal, 1974). Hunt's results have been regarded as "norms of syntactic development" (Combs, 1975; Mellon, 1969; O'Hare, 1973; Stotsky, 1975).

A number of recent studies have examined the effect of certain situational factors on syntactic complexity in speech and writing. The nature of the writing assignment was found to affect the syntactic complexity of written composition (Perron, 1976; Rosen, 1969; San Jose, 1972). Rosen (1969) found that his 15-16-year-old subjects produced longer T-units in referential writing than in expressive writing. San Jose (1972) and Perron (1976) examined the effect of mode of discourse on the syntactic complexity of, respectively, fourth-graders and third-, fourth- and fifth-graders. In both studies, mean T-unit length was greatest in argument followed by exposition, narration and description.

A second situational factor of interest is intended audience. Most studies of audience effect on syntactic complexity have involved spoken language rather than written. Several studies found that age of audience affected syntactic complexity in speech (Cazden, 1970; Shatz and Gelman, 1973; Jensen, 1973; Smith, 1935). The single study of the effect of intended audience on the syntactic complexity of written language involved a rewriting exercise (Smith and Swan, 1977). Sixth-graders and college

students rewrote a controlled stimulus passage three times—first so that it "sounded better" (the at level), then for a third-grade target (the below level) and finally for "the smartest teacher you know" (the above level). Differences among levels, described as an audience adaptation effect, were significant only for college students.

The present research was designed to examine the effect of intended audience and mode of discourse on the syntactic complexity of compositions written by sixth- and tenth-graders, and to determine whether there were increases in syntactic complexity from Grade 6 to Grade 10 for each audience and in each mode of discourse. The two audience conditions used—best friend and teacher—contrasted on the dimensions of age, intimacy and power. The three modes of discourse used—narration, description and argument—were selected because narration and description were least syntactically complex and argument most syntactically complex in the studies of San Jose (1972) and Perron (1976). Grades 6 and 10 were selected in the expectation that sixth-graders would be in a stage preceding and tenth-graders in a stage following the growth spurt in syntactic development which apparently occurs during junior high school years (Loban, 1976; Palermo and Molfese, 1973).

Method

Subjects

The final sample consisted of 60 boys and 60 girls in each of Grades 6 and 10 (N=240). Subjects were from one high school and two elementary schools in a large, essentially middle-class suburb of Minneapolis, Minnesota. Students from eight tenth-grade classes (N=198) and six sixth-grade classes (N=161) were randomly assigned to one of the

three mode conditions so that there was approximately the same number of students writing in each mode of discourse in each classroom. Students wrote six times in the assigned mode. Of those subjects who completed all assignments, six were discarded, four because one or more compositions consisted of nonsense and/or obscenity, and two because their work was incomprehensible. After discards, the number of complete sets available in each grade by mode by sex cell ranged from 20 to 29. Subjects were randomly discarded to equalize all grade by mode by sex cells at 20. The mean age of Grade 6 subjects was 11.9; the mean age of Grade 10 subjects was 15.9.

To determine whether the groups of subjects in each of the three modes were equivalent on measured syntactic complexity in writing, the "Aluminum" passage (Hunt, 1970) was administered to all students the week prior to beginning data collection. Within each grade, mean T-unit lengths for the 40 subjects in each of the three modes were approximately equal. Means for grade by mode cells are presented in Table 1.

Insert Table 1 about here

Materials

Three 35 mm color slides were prepared, piloted and used to elicit writing samples. Pictorial stimuli were chosen in order to control topic across mode, a feature lacking in previous studies of the effect of mode of discourse. Canoe showed two canoes on a lake in the woods. Classroom showed an elementary classroom with a boy about to let fly with a rubber band. Whale showed a performing whale in mid-air. Each picture represented one topic. Three topics were chosen because three compositions per audience seemed likely, on the basis of pilot data, to produce a sample of about 400 words, the approximate sample size required for reliable calculation of mean T-unit length (O'Hare, 1973).

Assignments

Printed assignment-instruction sheets were used to minimize both teacher effect and cross contamination of the six mode-by-audience treatment conditions which were administered in each classroom in each writing session. There were six different assignments for each of the three topics (pictures)—one for a best friend and one for a teacher in each of three different modes.

The instruction for narration assignments was to write an exciting story about the picture, and for description assignments, to describe the picture as fully as possible. Abbreviated versions of the argument assignments with teacher as intended audience are as follows:

Canoe. Your teacher is planning a three-day trip for your class. One possibility is the kind of trip suggested by this picture. Decide whether or not you would like this kind of trip. Your task is to try to convince your teacher to agree with you.

Classroom. This incident occurred while a substitute teacher was teaching the class. Imagine that this is your class. You are a member of a committee chosen by the class to decide on punishments for students who break the rules of the class. Your teacher is also on the committee. Decide what you think should happen to the boy in the picture. Your task is to try to convince your teacher that your opinion is right.

Whale. Some people have objected to the whale's being treated in this way. The manager is wondering whether he should close down this kind of entertainment. Decide what your opinion is. Now imagine that your teacher disagrees with you. Your task is to try to convince your teacher that your opinion is right.

Packages of assignment booklets for each class were prepared in advance. Each booklet consisted of a printed assignment sheet, complete with subject's name, stapled to a legal-sized sheet of paper lined on both sides. There was a package of assignment booklets for each class for each of the six writing sessions.

Procedure

Assignments were administered by the classroom teacher who projected the appropriate slide, distributed the assignment booklets and issued brief, standardized instructions in each writing session. Students wrote once a week for six weeks in their assigned mode, once for each of the two audiences on each of the three topics. All six mode-by-audience conditions were administered in each classroom in each session. Each topic was presented twice in each classroom. The order of topics was randomly assigned to classes, excluding those orders involving presentation of the same topic twice in a row. Students were randomly assigned to one of two groups within their assigned mode; orders of audience were counterbalanced for Groups 1 and 2 within each mode. Each session lasted 40 minutes. The week following the final assignment, make-up assignments were given to students who had missed not more than one.

Scoring and Scorers

Each composition was analyzed for: mean number of words per T-unit (W/TU), mean number of words per clause (W/CL), mean number of clauses per T-unit (CL/TU), these being Hunt's (1965) best measures of syntactic complexity in written composition from Grades 4 to 12. Procedures for segmenting into T-units were based on those used by O'Hare (1973, pp. 46-49).

Approximately half the scoring was done by the experimenter, the remainder by three trained assistants. After training and prior to scoring

experimental data, inter-scorer reliability coefficients were calculated, using pilot data. The range of inter-scorer reliability coefficients was .96 to .99 ($p < .001$ for $r = .96$). Inter-scorer reliability was checked on ten percent of the first set of papers and on five percent of each of the third and fifth sets of papers. The range of coefficients was .94 to .98 ($p < .001$ for $r = .94$).

Method of Analysis

The data yielded scores on three dependent measures: W/TU, W/CL and CL/TU. Each measure was analyzed by a separate ANOVA in a 2(grade) x 2(sex) x 3(mode) x 2(audience) x 3(topic) mixed design with repeated measures on the fourth and fifth factors. Results were tested for significance at the .05 level.

Results

Average total word lengths in grade by mode cells ranged from 773 for Grade 6 argument to 1149 for Grade 10 narration. Average word lengths in grade by mode by audience cells ranged from 380 to 576.

Results concerning audience. Compositions for teacher were more syntactically complex than those for best friend. This trend was significant for W/CL, $F(1,228) = 6.94$, $p < .01$, and approached significance for W/TU, $F(1,228) = 3.41$, $p = .065$; it was not significant for CL/TU, $F(1,228) = .06$. Results of the ANOVAs on each of the three dependent measures are presented in Tables 2, 3 and 4.

Insert Tables 2, 3 and 4 about here

There was a significant two-way interaction between audience and mode on W/CL, $F(2,228) = 3.31$, $p < .05$. The Newman-Keuls test revealed that the difference between audiences was significant only in argument ($p < .05$).

The interaction between audience and mode on clause length, including cell means, is illustrated in Figure 1.

Insert Figure 1 about here

Bonferroni t statistics were used to make planned pairwise comparisons of means in audience by grade cells for each dependent measure. The results showed:

1. At Grade 10, there was a significant contrast between audiences on W/CL ($p < .05$) but not on W/TU or CL/TU.

2. At Grade 6, there was no significant difference on any measure between compositions for teacher and those for best friend.

3. Grade 10 compositions were more syntactically complex than Grade 6 compositions for both audience conditions on all three measures ($p < .05$).

Means for grade by audience cells for the three dependent measures are presented in Table 5.

Insert Table 5 about here

Results concerning mode. Mode exerted a significant main effect on W/TU, $F(2,228) = 21.56$, $p < .001$, on W/CL, $F(2,228) = 13.65$, $p < .001$, and on CL/TU, $F(2,228) = 81.55$, $p < .001$. Bonferroni t statistics were used to make planned pairwise comparisons of means in mode by grade cells for each dependent measure. The results showed:

1. At Grade 10, there were significant contrasts between modes on all three measures ($p < .05$ for each measure). On W/TU, argument > description > narration. On W/CL, description = argument > narration. On CL/TU, argument > narration = description.

2. At Grade 6, there were significant contrasts between modes on W/TU and CL/TU ($p < .05$ for each measure), but not on W/CL. On W/TU, argument > narration, argument = description, description = narration. On CL/TU, argument > narration = description.

The relative positions of narration, description and argument on each of the three measures are illustrated in Table 6 which shows significant differences between modes at each grade level.

Insert Table 6 about here

Argument ranked highest on syntactic complexity and narration ranked lowest. Out of six cases, i.e., on each of the three measures at each of the two grade levels, argument scored significantly higher than both description and narration in three cases, and equal to description and greater than narration in a further two cases.

3. In argument, Grade 10 compositions were more syntactically complex than Grade 6 compositions on all three measures ($p < .05$ for each measure).

4. In description, Grade 10 compositions were more syntactically complex than Grade 6 compositions on W/TU and W/CL ($p < .05$ for each measure), but not on CL/TU.

5. In narration, there was no significant difference, on any measure, between compositions at Grade 10 and those at Grade 6.

Means for mode by grade cells for the three dependent measures are presented in Table 7.

Insert Table 7 about here

Results concerning sex and topic. Sex exerted a significant main effect on W/CL, $F(1,228) = 10.01$, $p < .01$. Clause length was greater for boys than for girls.

Topic exerted a significant main effect on W/TU, $F(2,456) = 20.97$, $p < .001$, and on CL/TU, $F(2,456) = 60.23$, $p < .001$. On W/TU, canoe was less syntactically complex than classroom and whale; on CL/TU, canoe was less syntactically complex than classroom.

There were a number of significant two-, three- and four-way interactions involving topic. Since topic was controlled by crossing it with all dependent variables, and since topic was not a variable under examination in this study, the interactions involving topic will not be discussed. Significant interactions involving topic are indicated in the ANOVAs on W/TU and CL/TU in Tables 2 and 4.

Discussion

Audience. For the total group, clause length and T-unit length were greater in compositions written for teacher than in those written for best friend. The difference may be interpreted in terms of the dimensions on which audiences were contrasted, namely, intimacy, age and power. It is likely that contrasts on one or more of these dimensions produced a contrast in the formality/informality domain, and that this contrast resulted in the observed differences in syntactic complexity, an interpretation consistent with Jensen (1973).

Our results were similar to those of Smith et al. (1977) in finding no significant difference between audiences at Grade 6. The results of our study and those of Smith et al. suggest that variations in syntactic complexity for different audiences appear much later in writing than in speech (Cazden, 1970; Shatz and Gelman, 1973).

Audience differences were most clearly evident in the mode of argument. A likely explanation is that argument demands greater attention to audience than either narration or description. The aim of the argument task was to effect a change of mind in the audience, i.e., to win a presumably overt response ("try to convince your teacher to agree with you"). Attention is thus focused on the audience. The aim of the description task was to represent the stimulus picture adequately so as to win an internal response (". . . so that your teacher will be able to imagine exactly what (the picture) is like"). Attention is focused more on the stimulus than on the audience. The narration task mentioned no explicit response by the audience (". . . make up an exciting story. . . Imagine you are writing the story for your teacher "). It is likely that the heightened awareness of audience promoted by the argument task contributed to the greater difference in syntactic complexity for different audiences in argument than in description and narration.

A sense of audience would not appear to have been strongly mediated in our study. Subjects had to imagine the audience and could easily have responded to the assignment without attending to the audience constraint. It is interesting to speculate about differences which might be found if students were writing to real audiences for real purposes.

Mode of Discourse. The results in regard to mode of discourse are clear and unequivocal. Mode was significant at both grade levels. In previous studies of the effect of mode of discourse (San Jose, 1972; Perron, 1976) mode was confounded with topic. Perron's results, moreover, were based on writing samples too brief for reliable calculation of T-unit length. In our study, topic was controlled by the use of the same stimulus picture for each of the three modes. Average sample size ranged from 773 words in

Grade 6 argument to 1140 words in Grade 10 narration.

At both grade levels, argument was more syntactically complex than narration and description, a finding consistent with San Jose (1972), Perron (1976) and Rosen (1969). Presenting an argument seems inherently to require the interrelationship of propositions which is expressed syntactically by the subordination of clauses and less-than-clausal elements. We believe that high syntactic complexity in argument is a function of the essential nature of argument.

Two findings of the present study are relevant for discussions of the development of syntactic complexity: a) the finding that there was no significant difference between Grades 6 and 10 in the mode of narration; and b) the finding that variations in mode produced differences in syntactic complexity at each of the two grade levels.

Hunt (1965) found significant differences on mean T-unit length between Grades 4 and 8 and between Grades 8 and 12. Other researchers have found significant differences as follows: between Grades 8 and 12 (Blount et al., 1968), between Grades 4 and 6 (Braun and Klassen, 1973), between Grades 3 and 5 (O'Donnell et al., 1967). In our study the difference between Grades 6 and 10 on mean T-unit length was significant for the total group of subjects in each grade, for subjects in argument, for those in description, but not for those in narration. This finding poses a question that deserves further exploration. If there is a point beyond which there are not significant increases in syntactic complexity in narration, the implications are important for studies of the development of syntactic skill. Such studies should examine data in which continued development is likely to be manifested. Our results suggest that narration places fewest demands and argument greatest demands on writers to make use of their syntactic resources.

Argument assignments are thus especially appropriate in studies of syntactic development while the reverse is true for narration assignments.

Hunt's (1965) mean scores, especially on T-unit length, for Grades 4, 8 and 12 have come to be used as norms of syntactic development (Combs, 1975; Mellon, 1969; O'Hare, 1973; Stotsky, 1975). In view of the evidence that syntactic complexity varies greatly with mode of discourse, the propriety of using Hunt's results as norms must be questioned. Hunt's mean scores for each grade were produced by averaging across a number of writing tasks which are not described. He found a difference on mean T-unit length of 2.9 words between Grades 8 and 12. In our study there was a difference of more than three words on T-unit length between students who wrote narrations and students in the same grade (Grade 10) who wrote arguments. This difference was greater than the difference between Grades 6 and 10 in any of the three modes (See Table 7), and greater than the difference Hunt found between Grades 8 and 12. Thus, the difference in writing task produced a greater difference between students in the same grade than was produced by a four-year age difference in each of two separate studies. There is clear need for norms which take account of differences in writing task. Rosen's (1969) suggestion of a multiple T-unit index might be considered. Developmental norms could be established for each grade level in each of the four traditional modes of discourse or, alternatively, in each of expressive, explanatory and argumentative writing. Were such an index developed, discussions of the development of syntactic complexity might be conducted within this more adequate framework.

In summary, the present study provides considerable evidence that syntactic complexity in written composition is affected by task variables, in particular, by intended audience and by mode of discourse. Mode differences

were significant at both grade levels with argument producing greatest syntactic complexity. Audience differences, on the other hand, were significant only at Grade 10 and were most evident in the mode of argument; syntactic complexity was greater in compositions written for a teacher than for a best friend.

The results have implications for research into syntactic development. Such research will be facilitated by the development of normative data which take account of task-related differences in syntactic complexity. Studies of syntactic development, moreover, should be based on writing which requires subjects to make maximum use of their syntactic skill. The evidence suggests that argumentative writing is one such kind of writing. It appears, on the other hand, that narrative writing, which showed no increase in syntactic complexity over a four-year age span, is not useful for examining the development of syntactic complexity.

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Table 1

Mean T-unit Length in Grade by Mode Cells
on the "Aluminum" Passage

Mode	Mean T-unit Length	
	Grade 6	Grade 10
Narration	6.53	10.15
Description	6.49	10.11
Argument	6.67	10.06

Table 2

ANOVA for Mean T-unit Length

	Source	df	MS	F	AET
(A)	Grade	1	1387.880	44.3605*	S(ABC)
(B)	Mode	2	674.5628	21.5609*	S(ABC)
(C)	Sex	1	53.3148	1.7041	S(ABC)
	A X B	2	81.0591	2.5909	S(ABC)
	A X C	1	21.5747	.6896	S(ABC)
	B X C	2	25.4129	.8123	S(ABC)
	A X B X C	2	6.9530	.2222	S(ABC)
	S(ABC)	228	31.2864		
(D)	Topic	2	153.2709	20.9713*	SD(ABC)
	A X D	2	11.8575	1.6224*	SD(ABC)
	B X D	4	28.4462	3.8922*	SD(ABC)
	C X D	2	.3586	.0491	SD(ABC)
	A X B X D	4	11.5816	1.5847	SD(ABC)
	A X C X D	2	20.2296	2.7679	SD(ABC)
	B X C X D	4	6.5484	.8960	SD(ABC)
	A X B X C X D	4	2.6927	.3684	SD(ABC)
	SD(ABC)	456	7.3086		
(E)	Audience	1	31.1052	3.4055	SE(ABC)
	A X E	1	16.8437	1.8441	SE(ABC)
	B X E	2	5.0647	.5545	SE(ABC)
	C X E	1	11.3423	1.2418	SE(ABC)
	A X B X E	2	.4323	.0473	SE(ABC)
	A X C X E	1	3.7597	.4116	SE(ABC)
	B X C X E	2	3.0490	.3338	SE(ABC)
	A X B X C X E	2	8.3235	.9113	SE(ABC)
	SE(ABC)	228	9.1339		
	D X E	2	9.1886	1.4411	SDE(ABC)
	A X D X E	2	.7422	.1164	SDE(ABC)
	B X D X E	4	14.3734	2.2543	SDE(ABC)
	C X D X E	2	8.5134	1.3352*	SDE(ABC)
	A X B X D X E	4	39.6023	6.2111	SDE(ABC)
	A X C X D X E	2	2.5719	.4034	SDE(ABC)
	B X C X D X E	4	8.5374	1.3389	SDE(ABC)
	A X B X C X D X E	4	5.2106	.8172	SDE(ABC)
	SDE(ABC)	456	6.3761		

Table 3

ANOVA for Mean Clause Length

	Source	df	MS	F	AET
(A)	Grade	1	529.4988	35.9151*	S(ABC)
(B)	Mode	2	201.2913	13.6533*	S(ABC)
(C)	Sex	1	147.6096	10.0121*	S(ABC)
	A X B	2	55.9678	3.7962	S(ABC)
	A X C	1	24.8325	1.6844	S(ABC)
	B X C	2	10.0991	.6850	S(ABC)
	A X B X C	2	24.4821	1.6606	S(ABC)
	S(ABC)	228	14.7431		
(D)	Topic	2	21.8186	2.5810	SD(ABC)
	A X D	2	24.6494	2.9158	SD(ABC)
	B X D	4	17.7903	2.1044	SD(ABC)
	C X D	2	.7646	.0904	SD(ABC)
	A X B X D	4	10.0378	1.1874	SD(ABC)
	A X C X D	2	10.0355	1.1871	SD(ABC)
	B X C X D	4	4.7364	.5603	SD(ABC)
	A X B X C X D	4	7.3167	.8655	SD(ABC)
	SD(ABC)	456	8.4537		
(E)	Audience	1	60.7623	6.9377*	SE(ABC)
	A X E	1	29.1897	3.3328	SE(ABC)
	B X E	2	28.9854	3.3095*	SE(ABC)
	C X E	1	3.5860	.4094	SE(ABC)
	A X B X E	2	6.5052	.7428	SE(ABC)
	A X C X E	1	11.1021	1.2676	SE(ABC)
	B X C X E	2	19.9273	2.2753	SE(ABC)
	A X B X C X E	2	14.8395	1.6943	SE(ABC)
	SE(ABC)	228	8.7582		
	D X E	2	3.5849	.3886	SDE(ABC)
	A X D X E	2	3.1483	.3413	SDE(ABC)
	B X D X E	4	3.4979	.3792	SDE(ABC)
	C X D X E	2	4.8964	.5308	SDE(ABC)
	A X B X D X E	4	12.2449	1.3274	SDE(ABC)
	A X C X D X E	2	.5633	.0611	SDE(ABC)
	B X C X D X E	4	1.3697	.1485	SDE(ABC)
	A X B X C X D X E	4	10.1001	1.0949	SDE(ABC)
	SDE(ABC)	456	9.2247		

Table 4

ANOVA for Ratio of Clauses to T-units

	Source	df	MS	F	AET
(A)	Grade	1	2.1607	11.1026*	S(ABC)
(B)	Mode	2	15.8698	81.5456*	S(ABC)
(C)	Sex	1	.4855	2.4945	S(ABC)
	A X B	2	.3099	1.5923	S(ABC)
	A X C	1	.1529	.7858	S(ABC)
	B X C	2	.3291	1.6909	S(ABC)
	A X B X C	2	.3770	.1937	S(ABC)
	S(ABC)	228	.1946		
(D)	Topic	2	3.9622	60.2263*	SD(ABC)
	A X D	2	.4235	6.4370*	SD(ABC)
	B X D	4	.5153	7.8326*	SD(ABC)
	C X D	2	.0362	.5501	SD(ABC)
	A X B X D	4	.0531	.8067	SD(ABC)
	A X C X D	2	.0861	1.3094	SD(ABC)
	B X C X D	4	.1022	1.5530	SD(ABC)
	A X B X C X D	4	.0731	1.1109	SD(ABC)
	SD(ABC)	456	.0658		
(E)	Audience	1	.0049	.0645	SE(ABC)
	A X E	1	.0095	.1248	SE(ABC)
	B X E	2	.1070	1.4046	SE(ABC)
	C X E	1	.0048	.0635	SE(ABC)
	A X B X E	2	.0335	.4402	SE(ABC)
	A X C X E	1	.1138	1.4933	SE(ABC)
	B X C X E	2	.0260	.3416	SE(ABC)
	A X B X C X E	2	.0532	.6981	SE(ABC)
	SE(ABC)	228	.0762		
	D X E	2	.0812	1.6278	SDE(ABC)
	A X D X E	2	.0124	.2488*	SDE(ABC)
	B X D X E	4	.1631	3.2711*	SDE(ABC)
	C X D X E	2	.1541	3.0911*	SDE(ABC)
	A X B X D X E	4	.1148	2.3018	SDE(ABC)
	A X C X D X E	2	.0015	.0302	SDE(ABC)
	B X C X D X E	4	.0299	.5911	SDE(ABC)
	A X B X C X D X E	4	.0007	.0150	SDE(ABC)
	SDE(ABC)	456	.0499		

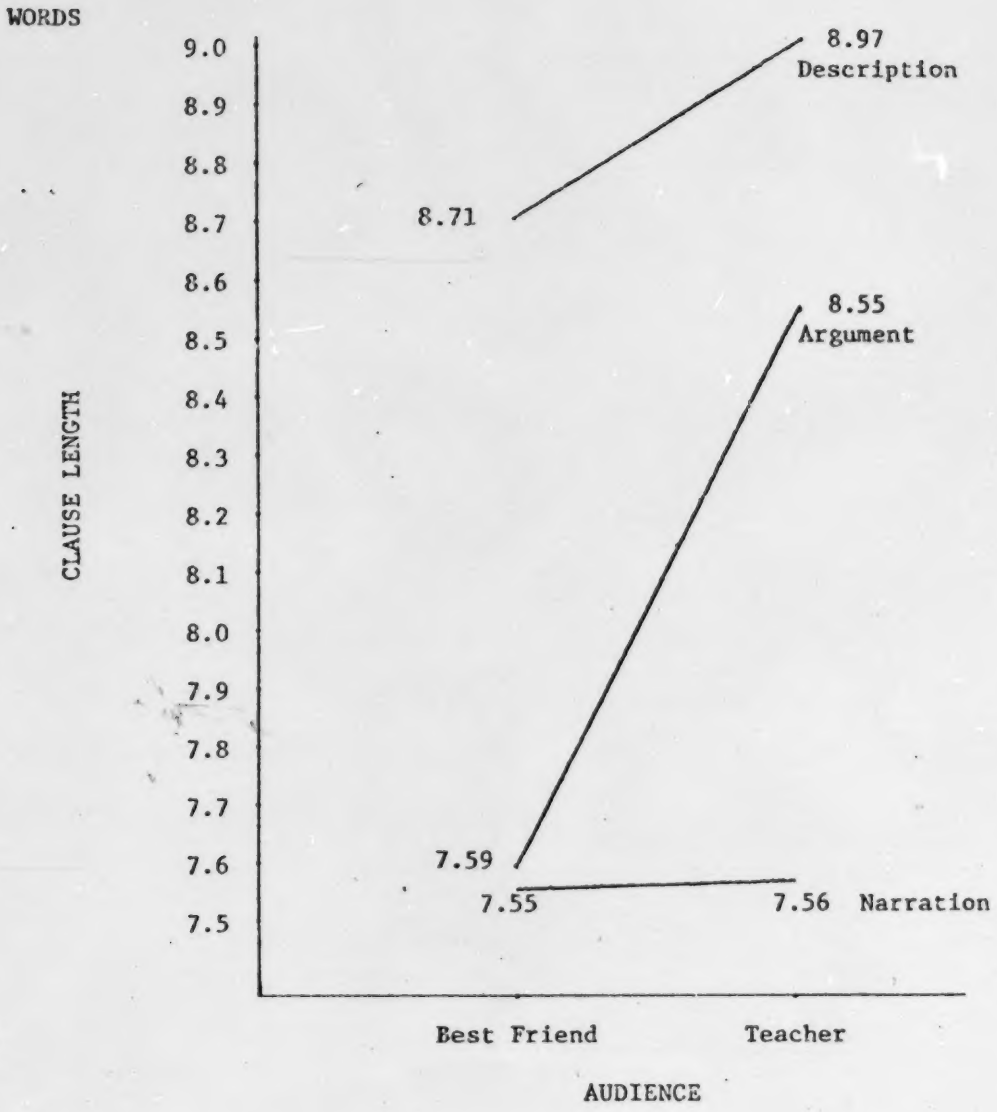

Figure 1

Significant Interaction Between Mode and Audience on Clause Length

Table 5

Means in Grade by Audience Cells on Three Measures of Syntactic Complexity

Measure	Grade	Audience	
		Teacher	Best Friend
W/TU	6	10.81_a	10.74_a
	10	12.99_b	12.48_b
W/CL	6	7.61_c	7.49_c
	10	9.11_d	8.42_e
CL/TU	6	1.42_g	1.42_g
	10	1.50_h	1.50_h

For the four contrasts of interest on each measure, cell means sharing a common subscript are not significantly different.

Table 6

Relationships Among Modes on Three Measures
at Grade 6 and Grade 10

Group	Measure	Relationship
Grade 6	W/TU	A = D D = N A > N
	W/CL	D = N = A
	CL/TU	A > N = D
Grade 10	W/TU	A > D > N
	W/CL	D = A > N
	CL/TU	A > N = D

A = argument
D = description
N = narration

Table 7

Means in Grade by Mode Cells on Three Measures on Syntactic Complexity

Measure	Grade	Mode		
		Narration	Description	Argument
W/TU	Grade 6	10.13_{a}	10.45_{ab}	11.75_{b}
	Grade 10	11.15_{a}	12.81_{c}	14.26_{d}
W/CL	Grade 6	7.34_{p}	8.04_{p}	7.26_{p}
	Grade 10	7.76_{p}	9.64_{q}	8.88_{q}
CL/TU	Grade 6	1.38_{x}	1.29_{x}	1.60_{y}
	Grade 10	1.42_{x}	1.34_{x}	1.73_{z}

For the nine contrasts of interest on each measure, cell means sharing a common subscript are not significantly different.